

REMARKS

By this amendment, Applicants have amended claims 4, 5 and 7 to eliminate the indefiniteness and antecedent basis problems noted by the Examiner in numbered section 3 of the Office Action. Claim 2 has been amended to delete the two occurrences of “(2)” and claims 8 and 9 canceled without prejudice or disclaimer. Applicants have added claims 10-16 to further define their invention. Claims 10 and 11 are supported by, e.g., Figures 1-3 and 6 and the description thereof in Applicants’ specification. Claims 12-16 correspond to claims 2-5 and 7, respectively, but depend from claim 6.

The Examiner has objected to the drawings under 37 CFR 1.83(a) as failing to show “a first chamber.” In support this objection, it has been urged by the Examiner that the drawings show a plurality of air-lock type inlet/outlets in communication with the second chamber, but do not show a first chamber that includes a plurality of air-lock type inlet/outlets. Applicants traverse this objection and request reconsideration thereof.

The drawings, as shown by way of example only in Figures 1-3 and 6, show a first chamber 5 having a plural number of air-lock portions 11-14. Thus, contrary to the allegation in the outstanding Office Action, the drawings show a first chamber (e.g., chamber 5) that includes a plurality of air-lock type inlet/outlets (e.g., 11-4). The drawings also show a second chamber, as shown by way of example only in Figures 1-4 and 6 as an inner culturing apparatus 20. Therefore, the drawings show a first chamber, a plural number of air-lock type inlet/outlets, being provided in the first chamber, and a second chamber for culturing the cells therein. Accordingly, the drawings show all of the features recited in the claims and described in the specification.

In view of the cancellation of claims 8 and 9, the rejection of these claims under 35 U.S.C. 112, first paragraph, in numbered section 2 of the Office Action is moot.

In view of the foregoing amendments to claims 4, 5 and 7, it is submitted all of the claims now in the application comply with the requirements of 35 U.S.C. 112, second paragraph. Therefore, reconsideration and withdrawal of the rejection 3 (sic-4), 5 and 7 in numbered section 3 of the Office Action are requested.

Claims 1-5 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 6,467,285 to Felder et al. Applicants traverse this rejection and request thereof.

The present invention relates to a culturing apparatus for culturing cellular tissues therein. The apparatus includes, as shown by way of example only in Figure 1, a first chamber 5, a plural number of air-lock type inlet/outlets 11-14, being provided in the first chamber 5, a second chamber 20 for culturing the cells therein, a manipulator 30, 32 operating within the first chamber 5, through remote or an automatic control, wherein the manipulator 30, 32 can access to both, at least one of the air-lock input/outputs 11-14 and the second chamber 20. The apparatus may further include control means for controlling flow, temperature or humidity of gas communicating within the first chamber. Such an apparatus is not disclosed by Felder et al.

The Felder et al. patent discloses an automated cold storage apparatus. Such an apparatus is useful for storing biological samples at below-freezing temperatures in order to preserve them for future reference, analysis or use. As shown in, e.g., Figures 1, 2A and 3 of this patent, the apparatus 1 has a freezer compartment 10 and a climate controlled chamber 60 that is generally disposed on a wall 11 of the freezer compartment 10 or associated housing 2. While the Examiner

equates the climate control chamber 60 of Felder et al. to the first chamber of the present invention, the freezer compartment 10 of Felder et al. to the second chamber of the present invention and the doors 61, 62 of the chamber 60 of Felder et al. to the air-lock inlet/outlets of the present invention, it is submitted the analysis in the outstanding Office Action is incorrect and the Felder et al. patent does not disclose the presently claimed invention.

In Felder et al., the climate control chamber 60 with its interior door 61 and exterior door 62 form a type of air-lock inlet/outlet for chamber 10. Even if one equates the chamber 10 of Felder et al. to the first chamber of the present invention and the climate chamber 60 with its doors 61, 62 to one of the air-lock type inlet/outlets of the present invention, then the Felder et al. patent does not disclose a second chamber for culturing cells or a plural number of air-lock type inlet/outlets.

The freezer compartment 10 of Felder et al. is not the equivalent of the second chamber for culturing cells of the present invention for a number of reasons. First, the compartment 10 is a freezer compartment, not a compartment for culturing cells. Second, even if the compartment 10 is equivalent to the second chamber of the present invention, it is submitted there is than no first chamber having a plural number of air-lock type inlet/outlets provided. The reference numerals 61 and 62 to which the Examiner refers as inlet/outlets are merely doors on the single climate control chamber 60, not a plural number of air-lock type inlet/outlets.

Thus, however the Felder et al. patent is analyzed, it does not disclose the presently claimed invention.

Claims 1-4 and 6-9 stand rejected under 35 U.S.C. 103 as being unpatentable over Felder et al. in view of U.S. Patent Application Publication No. 2002/0090320 A1 to Burow et al. and U.S. Patent No. 6,974,197 to Henry et al. Applicants traverse this rejection and request reconsideration.

The Felder et al. patent does not disclose the presently claimed invention for the reasons set forth above. In particular, it is submitted the doors 61, 62 of the climate-control chamber 60 of Felder et al. are not air-lock type inlet/outlets as noted above. Thus, the interpretation of Felder et al. noted at the bottom of page 6 of the Office Action is incorrect.

At the top of page 7 of the Office Action, the Examiner equates the climate control chamber 60 having door pieces 61 and 62 to one the air-lock type inlet/outlets of the present inventions. The Examiner admits that, with this interpretation, the Felder et al. patent would use a single air-lock type inlet/outlet rather than a plural number of air-lock inlet/outlets; however, the Examiner cites the Burow et al. publication as alleging disclosing a plurality of access openings. The Examiner also cites the Henry et al. patent for its teachings in connection with the use of a check valve. However, even the combined teachings of Felder et al., Burow et al. and Henry et al. would not have rendered the present invention obvious since the combined teachings would not provide any reason to include the second chamber of the present invention.

Therefore, with either of the interpretations of Felder et al. noted in the Office Action, the combined teachings of the references would not have rendered obvious the presently claimed invention.

Claim 5 stands rejected under 35 U.S.C 103(a) as being unpatentable over Felder et al. in view of U.S. Patent No. 6,673,595 to Barbera-Guillem. Applicants traverse this rejection and request reconsideration thereof.

The deficiencies of Felder et al. are noted above. The Examiner has cited the Barbera-Guillem patent as allegedly disclosing, inter alia, a sample processing station positioned within the chamber in order to deliver a medium to the sample during storage/culturing. However, it is submitted that nothing in Barbera-Guillem

would have remedied the basic deficiencies noted above with respect to Felder or provided any apparent reason to modify Felder et al. to arrive at the presently claimed invention. Accordingly, claim 5 is patentable over the proposed combination of Felder et al. and Barbera-Guillem.

Applicants note the Examiner has cited a number of documents as being pertinent to Applicants' disclosure. However, since these documents were not applied in rejecting claims formerly in the application, further discussions of these documents is deemed unnecessary.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 500.43499X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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